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| **Unit Title:** Counting and Cardinality, part 1 | **Pacing (Duration of Unit):** 10 weeks |

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| **Desired Results** |

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| **Transfer Goals (**Priority practice standards in **bold)** |
| *Students will be able to independently use their learning to:*   1. **Make sense of problems and persevere in solving them.** 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. **Attend to precision.** 7. Look for and make use of structure. 8. **Look for and express regularity in repeated reasoning.** |

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| **Established Goals (2011 MA Curriculum Frameworks Standards Incorporating the Common Core State Standards)** |

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| **Prerequisite Standards:**   * **PK.CC.MA.1:** Listen to and say the names of numbers in meaningful contexts. * **PK.CC.MA.2:** Recognize and name written numerals 0–10. * **PK.CC.MA.3:** Understand the relationships between numerals and quantities up to ten. * **PK.CC.MA.4:** Count many kinds of concrete objects and actions up to ten, using one-to-one correspondence, and accurately count as many as seven things in a scattered configuration. * **PK.CC.MA.5:** Use comparative language, such as more/less than, equal to, to compare and describe collections of objects | **WIDA for English Language Learners**  Standard 1: ELLs **communicate** for **Social** and **Instructional** purposes within the school setting  Standard 3: ELLs **communicate** information, ideas and concepts necessary for academic success in the content area of **Mathematics**  In the lesson planning stage, teachers will need to differentiate lessons for ELLs. In order to accomplish this they will need: 1.) this curriculum map, 2.) a list of their ELLs and their proficiency levels, and 3.) appropriate language function expectations and scaffolds or supports. |
| **Standards (Priority Standards in** **bold):**   * **K.CC.3: Write numbers from 0-20 (with 0 representing a count of no objects).** * **K.CC.4: Understand the relationship between numbers and quantities; connect counting to cardinality.**    + **K.CC.4b: Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.**   + **K.CC.4c: Understand that each successive number name refers to a quantity that is one larger.** * **K.MD.1: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.** * **K.MD.2:Directly compare two objects with a measurable attribute in common to see which has “more of/less of” the attribute.** * **K.G.1: Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.** * **K.G.2: Correctly name shapes regardless of their orientations or overall size.** * K.CC.1: Count to 100 by ones and by tens. * K.CC.2: Count forward beginning from a given number within the known sequence (instead of having to begin at 1). * K.CC.4: Understand the relationship between numbers and quantities; connect counting to cardinality.   + K.CC.4a: When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. * K.CC.5: Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. * K.MD.3: Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.[[1]](#footnote-1) |  |

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| **Meaning (\*Mostly assessed through Performance Tasks/Assessments)** |

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| **Big Ideas:** (Statements and concepts written in teacher friendly language which reflect the important [but not obvious] generalizations we want students to be able to arrive at. These are used by the teacher to focus daily instruction.)   * Objects have a quantity that can be determined by counting. * Counting has a predetermined rule and sequence * There is a relationship between numbers and quantities * A shape maintains its attributes regardless of orientation or size. For example, a triangle with the base on top is still a triangle. * Shapes have measurable attributes. | **Essential Questions:** (Questions which frame ongoing and important inquires about the big ideas. They are written for students and used in daily instruction to help engage students in meaningful thinking.)   * How do we use shapes? * Why is counting helpful? * What do we count? |

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| **Acquisition (\*Mostly assessed through traditional summative assessments)** | |
| **Knowledge:** Key basic concepts, facts, and key terms (written in phrases) students should be able to recall independently.  *Students will know …*   * The names of shapes. * That the number of objects in a collection is the same regardless of the arrangement or order. * That the final number when counting names the quantity. * That each successive number refers to one more.   **Key Academic Vocabulary:**  above, below, beside, in front of, behind, next to, longer, shorter, taller, heavier, and lighter | **Skills:** The discrete skills and process students should be able to use independently.  *Students will be skilled at:*   * Describing attributes of two-dimensional shapes. * Naming and describing shapes in their environment. * Accurately counting up to 20 objects in an array, in a line and in a circle. * Accurately counting up to 10 objects in a scattered configuration. * Writing numbers 0-20. * Naming the next number in a sequence. * Counting to 100 by ones and tens. * Counting forward from a given number. * Classifying objects into categories and counting the number of objects in each category. * Sorting objects by count. |

**Resource Suggestions:**

<http://www.k-5mathteachingresources.com/kindergarten-math-activities.html>

\*number puzzles

\* Number and counting card games

**Read Alouds**:

\* Ten Black Dots by Donald Crews

\* Ten Little Caterpillars by Bill Martin Jr.

**enVision Math**

**-Topic 1 lessons 1-6**

One to five

-**Topic 2 lessons. 1-9**

Comparing and ordering 0-5

- **Topic 3 lessons 1-7**

Six to ten

-**Topic 4 lessons 1-9**

Comparing and ordering numbers 0-10

-**Topic 5 lessons 1-4**

Counting, reading and writing numbers to 20

**-Topic 6 lessons 1-6**

Numbers to 100

**- Topic 12 lessons 1-3**

Measurement

**-Topic 13 lessons 1-4**

Sorting, Classifying, Counting, and Categorizing Data

-**Topic 14 lessons 1-5**

Identifying and describing shapes

-**Topic 15 lessons 1-4**

Position and location of shapes

-**Topic 16 lessons 1-4**

Analyzing, Comparing and Composing shapes

1. Limit category counts to be less than or equal to 10. [↑](#footnote-ref-1)